We claim:

5

20

25

- An aminotriazine condensation product, in particular melamine condensation product,
 producible by the reaction of aminotriazine, in
 particular melamine, with at least one oxocarboxylic acid derivative.
- The aminotriazine condensation product as claimed in claim 1, characterized in that at least one oxocarboxylic acid derivative originates from the group of the following compounds:

(III)
$$R_1$$
 R_2 R_3 R_1 R_2 R_3 R_4 R_2 R_4 R_4 R_5 R_7 R_8 R_8 R_8 R_8 R_8 R_8 R_9 R_9

where R = ester -CO-OR₂, amide -CO-NH₂, substituted amide -CO-NR₁R₂, anhydride -CO-O-CO-R₁, nitrile -CN, imino ester -CNH-OR₂, amidine -CNH-NH₂, substituted amidine -CNH-NR₁R₂, imino derivatives of the anhydride -CNH-O-CO-R₁, -CNH-O-CNH-R₁ and -CNH-NH-CNH-R₁,

 R_1 = alkyl, alkenyl, alkynyl and/or aryl radicals and/or substituted alkyl, alkenyl, alkynyl and/or aryl radicals having up to 20 carbon atoms or hydrogen H,

 R_2 = alkyl, alkenyl, alkynyl and/or aryl radicals and/or substituted alkyl, alkenyl, alkynyl and/or aryl radicals having up to 20 carbon atoms,

 $R_3 = -OR_1$, $-NH_2$, $-NR_1R_2$, $-R_1N-CO-R_1$ (amide radical), $-R_1N-CNH-R_1$ (amidine radical), $-R_1N-CN$ (cyanoamide radical), -R₁N-CNH-NH-CN (dicyanodiamide radical) and $-R_1N-CNH-NR_1R_1$ (guanidine radical).

5

The aminotriazine condensation product as claimed 3. in at least one of the preceding claims, characterized in that at least one oxocarboxylic acid derivative is an oxocarboxylic ester (III) and/or a carboxylic 10 ester hemiketal (IV),

$$(III) \qquad \begin{matrix} O & O \\ R_2 & R_2 \end{matrix} \qquad OR_2 \qquad \qquad (IV) \qquad \begin{matrix} R_2O & OH & O \\ R_2 & R_2 & OR_2 \end{matrix}$$

where R_2 may be identical or different.

15 The aminotriazine condensation product as claimed 4. in at least one of the preceding claims, characterized in that at least one oxocarboxylic acid derivative is an aldehydecarboxylic ester (V) and/or a carboxylic ester hemiacetal (VI), 20

$$(V) \qquad \begin{array}{c} O \\ H \end{array} \qquad \begin{array}{c} O \\ R_2 \end{array} \qquad OR_2 \end{array} \qquad \begin{array}{c} OH \\ R_2 \end{array} \qquad OR_2 \end{array}$$

where R_2 may be identical or different.

25 5. The aminotriazine condensation product as claimed in at least one of the preceding claims, characterized in that at least one oxocarboxylic acid derivative is a glyoxylic ester (VII) and/or a glyoxylic ester 30 hemiacetal (III),

$$(VII) \xrightarrow{O} O \qquad (VIII) \xrightarrow{HO} O OR$$

15

25

where R_2 may be identical or different.

The aminotriazine condensation product as claimed 6. in at least one of the preceding claims, characterized in that at least one oxocarboxylic acid derivative is glyoxylic methyl ester methyl hemiacetal (GMHA; methyl 2-hydroxy-2-methoxyacetate) (IX).

- The aminotriazine condensation product as claimed 10 7. in at least one of the preceding claims, characterized in that the molar ratio of aminotriazine to the oxocarboxylic acid derivative is 1:2 to 1:4.
- The aminotriazine condensation product as claimed 8. in at least one of the preceding claims, characterized in that the reaction is carried out in a solvent, in particular water, alcohol or an 20 inert solvent.
 - The aminotriazine condensation product as claimed 9. in at least one of the preceding claims, characterized in that the reaction takes place at pH = 3to 10.
- 10. The aminotriazine condensation product as claimed in at least one of the preceding claims, characterized in that the condensation product is solu-30 ble both in organic solvents and also in water.

11. The aminotriazine condensation product as claimed in at least one of the preceding claims, characterized in that it is formed by secondary reactions which occur at the same time as and/or following the primary reaction.

10

15

- The aminotriazine condensation product as claimed 12. in claim 11, characterized in that the secondary reaction is an etherification, a transetherification, an esterification, a transesterification, an amidation or a hydrolysis.
- The aminotriazine condensation product as claimed 13. in claim 11, characterized in that the secondary reaction is carried out following the primary reaction.
- The aminotriazine condensation product as claimed 14. in one of the preceding claims, characterized in that, after the reaction, syrup-like solutions with a content of from 5 to 95% by weight, preferably from 25 to 75% by weight, particularly preferably from 30 to 60% by weight, are obtained.
- 15. The use of aminotriazine condensation products, in 20 particular melamine condensation products, claimed in at least one of the preceding claims, characterized by the preparation of resins, resin additives, resin liquor stabilizers, (latent) hardeners, hybrid resin systems, adhesives, foams, fibers, microcapsules, moldings, laminates, cross-25 coating linkers, additives, chromatography materials, organic synthesis building blocks, polymer modifiers, agrochemicals, UV protection polyurethanes, skincare products, 30 materials with flame-resistant properties.
 - 16. A method for the production of aminotriazine condensation products as claimed in at least one of claims 1 to 14,
- 35 characterized in that an aminotriazine, in particular melamine, is reacted in a liquid phase with at least one oxocarboxylic acid derivative.

- 17. The method as claimed in claim 16, characterized in that, after the primary reaction, a derivatization, in particular an etherification, a transetherification, an esterification, transesterification, an amidation or a hydrolysis, is carried out.
- 18. The method as claimed in claim 16 or 17, characterized in that the reaction product is concentrated, filtered off, dried, 10 condensed by increasing the temperature and/or cured.